

Technology Plan FY2015

Plan effective thru June 30, 2018

Chester County School District
Chester, SC.

www.chester.k12.sc.us

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3/28/2015

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Executive Summary

In the 2002-2003 school year, it was decided that major revisions to the CCSD technology plan were necessary to allow for proposed growth in instructional technology and the replacement of obsolete equipment. In

2011, additional desktops were purchased for all teachers and in 2012, HP All-In-One PC's were purchased for all labs to keep all of our technology up-to-date. In 2013, the district purchased a new promethean board for every certified teacher's classroom and began the 1:1 student-to tablet implementation in the 9th through 12th grades. In support of the 1:1 initiative, intensive professional development sessions regarding technology integration for teaching and learning were offered in the months before initial deployment, and the professional development has continued on a monthly basis for teachers, administrators and district instructional and technology staff during our "Tech Tuesday" meetings. Also, teacher desktops were "re-purposed" in 2014 and replaced with a Lenovo Yoga laptop to encourage mobility in the classroom.

- We achieved a 1:1 interactive whiteboard-to-classroom ratio on schedule and are investigating new technologies for the classrooms as the 1:1 student tablet initiative will drive what our teachers will need to replace the interactive whiteboards by the 2018 – 2019 school year.
- By 2016 we will have expanded the 1:1 to encompass grades 4th – 12th with plans to have a complete 1:1 in grades 1st – 12th by 2018. Decisions are still to be made as to a 2-year lease with options for student buy-out or purchase agreement.
- The Cisco UCS has been implemented and now houses over 25 of our centrally located servers (Power School, CSI, ISE, Domain Controllers, Configuration Manager, HVAC, etc.).
- In the summer of 2015, we will upgrade all servers in each school to Windows 2012 R2 along with additional memory and HD space. This will allow us faster distribution points for SCCM imaging in the future.
- 10 GB Dark Fiber has been installed (by the State) to all schools located next to each other thus saving money. E-Rate for 2015 includes a 10 GB upgrade to the backbone of the network at each school. Our WAN is running at 1 GB and Internet access has just been upgraded to 550 MB. All of our monitoring efforts show we should be poised for a successful 1:1 deployment once the backbone is complete.
- E-Rate requests have also been submitted for the implementation of a heavy wireless access point overlay in our elementary schools in anticipation of the expansion of 1:1 tablets to students.
- The district continues to strive towards being paperless and has worked hard to achieve this as cloud storage options become more readily available.
- By the beginning of the 2015 - 2016 school year, we will implement a personalized APP for Android and Apple device users to help in individualized school notifications to parents and students. This will also make student information (i.e. grades, classes) readily available to parents.
- The district is looking at alternatives to School Desk as a district page provider to improve the "face" of our district.
- The district will continue to provide professional development geared toward technology for all employees.
- The district will fully move all students and staff to Office 365 for email and cloud storage as well as the teaching and collaboration tools available to us with Office 365.
- By end of 2016, schools with 1:1 student tablets will have wireless access anywhere on school property. Additionally, the community has expressed interest in building upon this initiative by providing county-wide access points - "hot spots" for students - who do not have connectivity at home.

Background Information

Chester County School District is a progressive, evolving education community, implementing technology to assist our students in meeting the challenges they will face in the ever-changing technological world. The twelve schools of Chester County serve a rural population of about 31,000 residents. The schools are housed in eleven facilities comprising six elementary schools, four middle schools and three high schools. In addition to the twelve traditional schools there is also the Chester County Career Center, the Adult Education Center, The Learning Center (alternative program), The Academy of Teaching and Learning (charter school), and the District Office.

The mission statement of Chester County School District is “a great place to grow, committed to excellence for all students.” The goal of the district, in partnership with the community, is to develop productive citizens prepared for the changing world by providing challenging, lifelong learning opportunities in a safe, healthy, and positive environment.

Previous District Goals and Current State of Technology- Assessment and Goals

- A) The district's previous technology plan included the implementation of iPad's and laptop carts for grades K-5 for a minimum of a 5:1 ratio. In 2016, the iPad and laptop carts will be repurposed to serve K-3 and the 1:1 tablet initiative is to expand through grades 4-12. An expansion of our wireless capability will continue with the completion of high and middle schools in 2016. This expansion supports our current 1:1 tablet initiative in grades 9-12. This expansion of wireless heavy overlay will continue in grades 4-8 with e-Rate proposals that are awaiting to be awarded. The district has implemented a policy that provides an interactive white board in every classroom assigned to a certified teacher in 2015.
- Our goal is to provide teachers with a seamless technology that will use the 1:1 tablets to form an interactive classroom and will give teachers the tools needed for 21st century teaching. We will research new replacement technology for the interactive white boards with an anticipated replacement date of 2018.
 - In preparation for the initial deployment of tablets in our 1:1 initiative, a district-wide Technology Consultant, with a multitude of experience in 1:1 initiatives, was hired in 2013. The technology consultant has offered a variety of professional development opportunities for district staff. These offerings have occurred face-to-face, online, and have had a blended format (face-to-face and online.)
 - Summer Institutes for Technology Integration for Teaching and Learning in Education have been conducted with teacher leaders, chosen through an extensive application process. Each teacher leader was immersed in professional development for teaching and learning with technology and have been providing professional development to the district and to their teachers throughout the year.
 - An interactive One-Note Notebook was created with countless resources to aid the teachers in the 1:1 initiative in their classrooms. This notebook is updated frequently as resources are found and determined to be valuable.
 - Once a month, the district has "Tech Tuesday" professional development for district staff. These professional development sessions are planned by the district technology consultant and facilitated by the teacher leaders of each school throughout the district.
- B) A Cisco UCS running VMWare has been implemented and now houses over 25 of our centrally located servers. The district continues to expand and upgrade this equipment as the technological needs of the district grow. SAN upgrades to 10 TB should be complete by the beginning of the 2015-16 school year.
- The district plans to expand the virtual server environment to include disaster recovery and fail over capabilities. Beginning in 2016, the district will initiate a three-year plan to implement disaster recovery hardware and Cisco UCS fail over capabilities. The entire project will be completed by 2018.
- C) Many upgrades to our WAN have been implemented. Dark Fiber between 5 locations eliminated cost and increased bandwidth between these schools to 10 GB. All WAN connections are now at 1 GB and Internet bandwidth is at 550 MB. New software and hardware are in place to monitor the network for efficiency and all indications are that our WAN has the bandwidth for new internet based testing and web based teaching. We will continue to monitor our network closely.

- Applications have been filed for e-Rate funding in 2015 to help fund a 10 GB fiber upgrade to our network backbone in every school. The existing 1 GB fiber will be repurposed to isolate the surveillance camera system installed in 2013. The specs call for OM4 fiber 12 strand so there will be room for growth.
- D) The decentralization of the school servers helped our bandwidth. Because of the timeframe of this project, the servers are still running Windows server 2008 standard 32 bit.
- The district will upgrade the hardware and OS on these servers in the summer of 2015 to better utilize the 10 GB network backbone.
- E) The district installed new distance learning equipment which is currently used by the University of South Carolina-Lancaster (USC-L) and York Technical College (York Tech) along with implementation of a World Class Scholars program to enhance the learning and interaction with 1st-8th grade students in other countries.
- We will continue to enhance digital learning in our district by adding Brain Gym equipment classrooms with PC's connected to them so as the student exercises, they can learn from presentations on the screen in front of them.
 - In conjunction with a private industry in our community that has connections to China, we are working on Microsoft Lync / Skype classrooms that will interact with Chinese students and teachers in the classroom.
- F) The district has implemented a VOIP telephone system hosed by our local telco (TruVista) and phones have been placed in every classroom with a teacher and in all offices.
- The district plans to expand on this as we implement Lync and Cisco teleconferencing equipment to make voice and video conferencing available anywhere in the district. These applications and hardware should be in place by 2016 – 2017 school year.
- G) Heavy overlay of Cisco access points have been deployed at the middle and high schools to support our 1:1 tablet initiative in the 9th – 12th grades. The overlay is currently at 1 Access point in every classroom and as our class sizes grow in certain areas, we will put additional AP's in a classroom as needed.
- We are in the process of implementing a heavy overlay of wireless technology in our elementary schools as the 1:1 tablet initiative expands into these schools in the 2015 – 2016 school year.
 - Installation of Cisco ISE wireless security will be complete by summer 2015. This will keep any unwanted devices off the network to free up bandwidth for testing and other network based learning.
- H) Our web page provider was changed in the 2011 – 2012 school year to School Desk. This has saved a substantial amount of yearly cost but they have failed to deliver on promises to make the program more user friendly and to make the platform more current.
- The district is researching alternative web page providers that will meet our needs. We will make a recommendation to our superintendent by the end of 2015.
 - The district is also in the process of implementing software like Parent Link. This will augment the web page by adding a personalized Chester County School District APP that can be installed on any Android or Apple device that allows for a two-way communication with parents, teachers, and administrators. This app will enable parents to customize the notifications that they want to receive, such as school events, their children's grades, and activities. This Chester County School District APP is available now and will be fully functional by 2015 – 2016 school year.

- I) New help desk software was implemented to enhance the records being kept on all of the new technology and 1:1 tablets. Every user puts in their own ticket and can follow the progress as it flows through the system. One of the major reasons for this upgrade was the start of a new Career Center class called SWAT (Students Working to Advance Technology). These students look at and work within the ticketing system to solve different tablet, desktop, and interactive white board issues with the help of their instructor.
- The goal of the IT department is to have a system in place to help grow our students in the technology field by getting them involved in the trouble shooting of technology throughout the district. This program is just beginning and has helped the IT department save money and time by getting the students the tools needed to make our 1:1 initiative a success.
- J) Additional professional development continues to be a need within the district. There are ongoing plans to provide training in the areas of School Desk, OneNote, basic technology, Microsoft Office products and Office 365, interactive whiteboards, and various other technology-related products in addition to other professional development training.
- The Career Center SWAT (Students Working to Advance Technology) program was implemented in 2015 and has already proven to be a great addition to our IT Department. They learn how to repair and fix technology in the district and will be prepared to take the A+ certification upon class completion. This is a new program created by us and we are involving them with the ticketing system and repair procedures that would be used by current industries.
 - In addition, we plan to have on staff by the 2015 – 2016 school year, three core area Technology Integrationists to help with the daily needs of teaching with technology.

Action Plan, Timeline, and Budget Summary:

| GOALS | OBJECTIVES | BUDGET REQUIRED | TARGET COMPLETION |
|---------------------------------|---|---------------------------------|-------------------|
| A 1:1 program for the students. | To prepare students for a technology-driven world in which innovation, creativity, and autonomy drive today's business world. | \$1,400,000 annually to sustain | 2017 - 2018 |

| GOALS | OBJECTIVES | BUDGET REQUIRED | TARGET COMPLETION |
|--|--|-----------------|-------------------|
| A 1:1 program that would replace current interactive white boards. | To utilize the 1:1 tablets in the classroom using technology that works seamlessly to allow the teacher to interact with them. | \$1,200,000 | 2018-2019 |

| GOALS | OBJECTIVES | BUDGET REQUIRED | TARGET COMPLETION |
|--|--|-----------------|-------------------|
| Create a wireless network capable of handling the 1:1 tablet initiative. | Cisco ISE security and installation of a heavy overlay of access points to create a secure wireless network that is robust enough for the rigors of a 1:1 tablet initiative. | \$300,000 | 2016 - 2017 |

| GOALS | OBJECTIVES | BUDGET REQUIRED | TARGET COMPLETION |
|---|---|-----------------|-------------------|
| To increase the districts' network to a 10 GB backbone between racks. | To give the teachers and students a multimedia, rich learning environment. This will also better support our VOIP system and distend learning labs. | \$398,266 | 2016 -2017 |

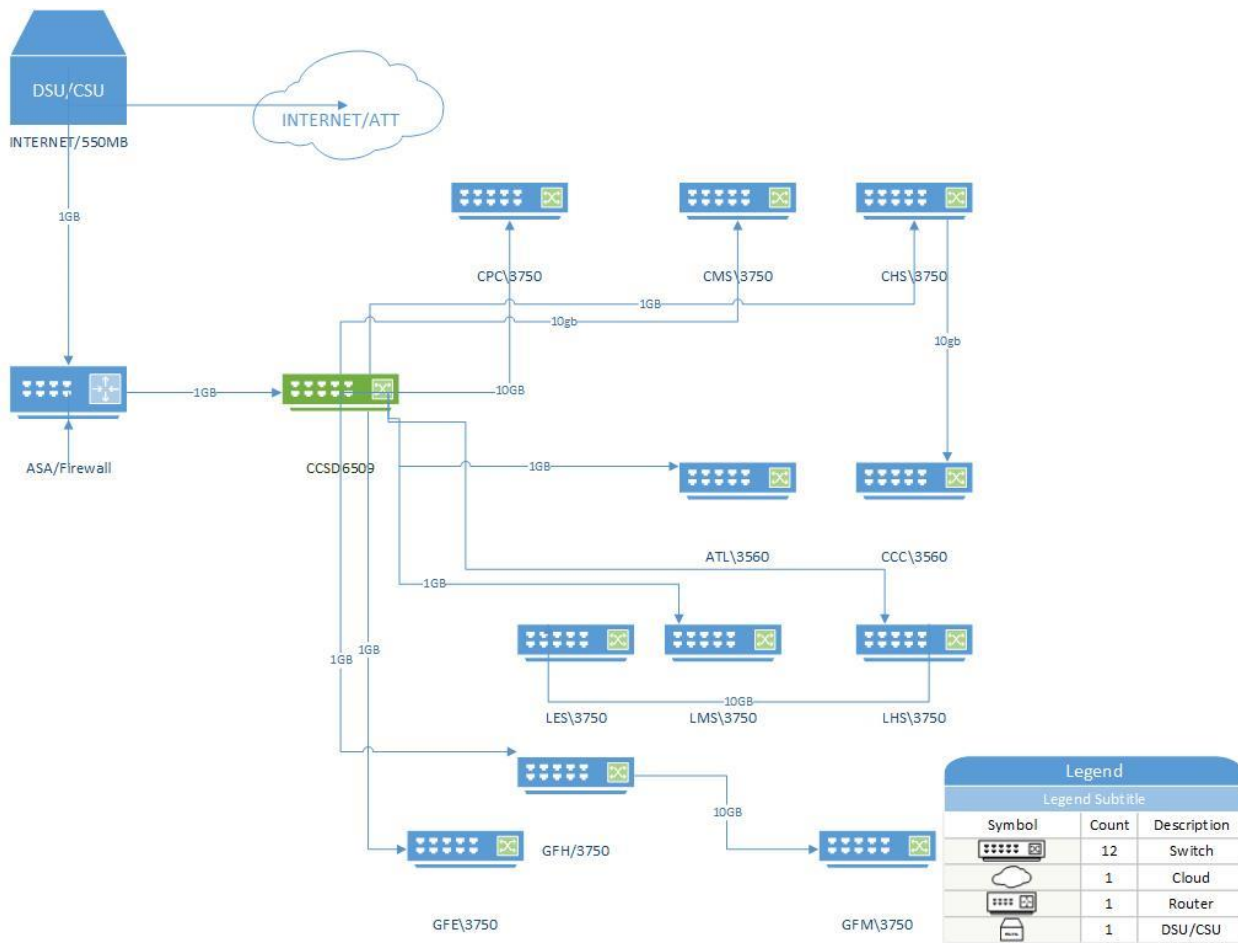
| GOALS | OBJECTIVES | BUDGET REQUIRED | TARGET COMPLETION |
|---|--|-----------------|-------------------|
| To continue to strive to be a paperless district. | This goal will cut down on the cost of paper and allow the district to be more environmentally friendly. With new cloud technology we are researching how to store this data in the cloud using applications like One Drive. | N/A | 2016 - 2017 |

| GOALS | OBJECTIVES | BUDGET REQUIRED | TARGET COMPLETION |
|---|---|--------------------|----------------------|
| To have all of our teachers be familiar with the technology in our district and comfortable using it to interact with students and the 1:1 tablet initiative. | We will offer training to all teachers that will enhance their teaching abilities using the new technologies (both hardware and software) that the district is pursuing. Hire Technology Integrationists to help with implementation of technology. | N/A | 2016 - 2017 |

Evaluation

The district is subject to a variety of evaluation and accountability measures as a result of state and federal mandates. Student assessment results as measured by the standardized tests are used by the state and federal governments to generate district and school report card ratings. These results determine adequate yearly progress and will be used to evaluate teaching and learning. Teacher assessments provided by the SCDE determine proficiency levels for all certified staff in the district. Results from these assessments have been used to recommend appropriate professional development classes to assist staff and students in achieving technical proficiency. Additionally, classroom observations have been analyzed to evaluate the effective integration of technology to support instruction and student achievement. Teacher and administrative input is sought through surveys, such as SurveyMonkey, Zoomerang, and the surveys aggregated through the South Carolina Department of Education. These surveys focus group meetings for the purpose of discussing the effectiveness and future needs of technology activities. Such activities include, but are not limited to, access to appropriate hardware, software, staff development, and technology support.

Attachment 1: Network Diagram



NETWORK ACCEPTABLE USE

Code **GBEE** Issued **9/13**

Purpose: To define the board's vision for technology in the district and to establish a basic structure for the use of technology resources.

Technology is a vital part of education and the curriculum of the Chester County School District. In an effort to promote learning and expand educational resources for students, the district provides network access to students, employees and non-employees. The district's goal in providing this service is to promote educational excellence by facilitating collaboration, communication and innovation within the schools, throughout the district and across the Internet. Access to the network will allow students, employees and non-employees the opportunity to communicate with others on a global level and to access materials worldwide.

Access to the network is a privilege, not a right. With this privilege comes a responsibility to use the network solely for educational purposes and not to access inappropriate materials. To that end, the district administration has developed guidelines governing the appropriate use of district computers and access to the network.

As part of the implementation of the administration's guidelines, employees, students and non-employees must be instructed on the appropriate use of the network. District employees and non-employees must sign the Network Acceptable Use Policy Certification Form GBEE-E(1) (employees) and E(4) (non-employees) acknowledging that they have read, understand and will abide by the district's network acceptable use policy before they will be allowed to access the network. A similar form GBEE-E(2) (preK-5) or E(3) (6-12) must be signed by students and their parents/legal guardians before students are allowed access to the network. These forms are available in the district office.

Accessing inappropriate sites

Inappropriate network use by any person will not be tolerated. Internet activities will be monitored by the district to ensure employees, students and non-employees are not accessing inappropriate sites that include obscenity or child pornography. The district will use technology protection measures to minimize inappropriate access to unacceptable sites in accordance with the Children's Internet Protection Act.

The district will publish its network acceptable use policy on the district website.

According to state and federal law, district and school computer technicians who are working with a computer and come across sexually explicit images of children must report this to the district and local law enforcement. The report must include the name and address of the owner or person in possession of the computer.

Cf. IJNDB

Adopted 5/1/00; Revised 6/24/02, 10/18/04, 5/23/11, 9/16/13

Legal references:

A. Federal law:

1. 47 USC Section 254(h) - Children's Internet Protection Act.
2. The Digital Millennium Copyright Act of 1998, Section 512 - Limitations on liability relating to material online.

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(see next page)

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B. S.C. Code of Laws, 1976, as amended:

1. Section 10-1-205 - Computers in public libraries; regulation of Internet access.
2. Section 16-3-850 - Encountering child pornography while processing film or working on a computer.
3. Section 16-15-305 - Disseminating, procuring or promoting obscenity unlawful; definitions; penalties; obscene material designated contraband.

School District of Chester County, Chester, SC

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School District of Chester County, Chester, SC

Chester County School District

Chester County School District's Network Acceptable Use Policy and Student/Parent Tablet Agreement & Regulations

The **Chester County School District** considers any violation of the Network Acceptable Use Policy to be a serious offense and reserves the right to copy and examine any files or information resident on district systems allegedly related to unacceptable use. Violators are subject to disciplinary action. Offenders also may be prosecuted under laws including (but not limited to) the Privacy Protection Act of 1974, The Computer Fraud and Abuse Act of 1986, The Computer Virus Eradication Act of 1989, Interstate Transportation of Stolen Property Act, and the Electronic Communications Privacy Act.

Summary

This Network Acceptable Use Policy is designed to describe how the **Chester County School District** expects technology resources to be used. Persons violating this policy may suffer disciplinary action including, but not limited to, the loss of privileges relating to the use of technology in the schools. The district's goal is to provide employees and students with access to technology in a safe environment that encourages and supports instruction. As a user of these technologies you are expected to read, understand, and acknowledge this policy before using the technology resources.

Please note: **Chester County School District** monitors all computer usage through a security system. Federal law (CIPA) mandates that all computer activity within schools be closely watched in order to ensure the safety of our students.

Signatures

I understand and agree to abide by the **Chester County School District's Network Acceptable Use Policy and Student/Parent tablet Agreement & Regulations.** I understand that there are consequences if I don't follow this Acceptable Use Policy.

Student Signature

Date

Parent Signature

Date

NETWORK ACCEPTABLE USE POLICY

Terms and Conditions of Use Employee Certification Form

I have read and understand the school district's network acceptable use policy and administrative rule. I understand and will abide by the conditions and rules set forth therein. I further understand that violations of these conditions and rules are unethical and also may constitute a criminal offense. Should I commit any violation, my access privileges may be revoked, disciplinary action may be taken, and appropriate legal action may be instituted. I also agree to be responsible for any unauthorized costs incurred by my use of the network.

Employee name (please print): _____

Work location: _____

Employee signature: _____ Date: _____

SCHOOL CONNECT The Chester County School District uses an automated phone contact system called *School Connect*. The system will be used to notify you of information such as school closings due to inclement weather and other important issues.

We must have your current phone number in the system so that you will receive these important phone messages.

Phone: ()

The above listed number is a:

☐ Landline ☐ Wireless (cell phone)

☐ I do not wish to provide my phone number. I understand that I will **not** be notified by the School Connect system with messages and updates.

Certification

This Technology Plan has been reviewed and submitted on behalf of Chester County School District.

Technology Director's name: Neil A. Rollins

Technology Director's signature: _____ Date signed

Superintendent's name: Dr. Agnes Slayman

Superintendent's signature: _____ Date Signed

FOR USE BY THE SOUTH CAROLINA STATE SCHOOL DISTRICT

This plan has been reviewed and certified by the South Carolina State School District or Library. This certification will be effective for the term of this plan, but not to exceed three years.

Approved by the SC State School District or Library:

Date: _____

This certification expires: _____